

NPOESS – NEXT GENERATION DATA COMMUNICATION SYSTEM FOR SPACE BASED REMOTE SENSING

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ABSTRACT

NPOESS provides near real time global coverage weather data and information through multiple communication paths enabling both stationary and mobile users to have current knowledge of their environmental conditions. The system collects, processes and distributes various earth environment observed data with minimal latency between observation and information delivery. The space assets perform the initial data collection, data routing and data preparation for distribution through multiple RF links. A system of distributed receptors receives all data, prepares the data for distribution through terrestrial infrastructure and routes the data. The data is received, checked, stored, processed and redistributed as information. Guaranteed data delivery is a driver key driver for fixed location users. Mobile users of the data receive and process specific information for local consumption. Bandwidth utilization is a primary design driver for mobile users. The end-to-end system design focuses on reliable data transport, and delivery timeliness.

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